CLAIMS

1.   A method for determining a spanning tree, the method comprising acts of:

determining a root bridge identifier, the root bridge identifier being used as a root bridge identifier in a plurality of network forwarding devices, at least two of which are coupled by a network and participate in a same spanning tree; and

using, by the at least two of the plurality of network forwarding devices, the root bridge identifier without having to exchange the root bridge identifier in a network message.

2.   The method according to claim 1, wherein the act of determining the root bridge identifier includes an act of configuring, at the at least two of the network forwarding devices, the root bridge identifier as being the root bridge in the spanning tree.

3.   The method according to claim 1, further comprising an act of configuring, at the at least two of the network forwarding devices, a same root bridge path cost.

4.   The method according to claim 1, wherein the act of determining a root bridge identifier further comprises an act of configuring, in a respective memory of the at least two of the plurality of network forwarding devices, an entry for the root bridge identifier.

5.   The method according to claim 1, further comprising an act of determining, for at least one respective access port of the at least two of the plurality of network forwarding devices, a root path cost.

6.   The method according to claim 5, wherein the root path costs for the at least one respective access port of the at least two of the plurality of network forwarding devices are the same value.

7.   The method according to claim 5, wherein the network includes a bridged network that couples the at least two network forwarding devices, and wherein the method further comprises an act of disabling, on at least one port of the at least two network forwarding devices coupled to the network, transmission of bridge protocol data units (BPDUs) between the at least two network forwarding devices.

8. The method according to claim 7, wherein the bridged network is implemented using Multiprotocol Label Switching (MPLS).

9. The method according to claim 7, further comprising an act of transmitting, on at least one respective access port of the at least two of the plurality of network forwarding devices, bridge protocol data units (BPDUs).

10. The method according to claim 9, wherein the at least two of the plurality of network forwarding devices are coupled by another network, and the method further comprises communicating the root bridge identifier in at least one BPDU transmitted on the another network.

11. The method according to claim 5, wherein the network includes a bridged network that couples the at least two network forwarding devices, and wherein the method further comprises an act of disabling, on at least one logical connection of the at least two network forwarding devices coupled to the network, transmission of bridge protocol data units (BPDUs) between the at least two network forwarding devices.

12. The method according to claim 11, wherein the bridged network is implemented using Multiprotocol Label Switching (MPLS).

13. The method according to claim 11, further comprising an act of transmitting, on at least one respective access port of the at least two of the plurality of network forwarding devices, bridge protocol data units (BPDUs).

14. The method according to claim 13, wherein the at least two of the plurality of network forwarding devices are coupled by another network, and the method further comprises communicating the root bridge identifier in at least one BPDU transmitted on the another network.

15. The method according to claim 1, wherein the at least two of the plurality of network forwarding devices are located at the edge of a provider network, and wherein the further comprises an act of disabling, on at least one respective port of the at least two network

forwarding devices, each of the at least one respective ports being coupled to the provider network, transmission of bridge protocol data units (BPDUs) between the at least two network forwarding devices.

5   16.   The method according to claim 1, wherein the root bridge identifier is not assigned to any network forwarding device in the spanning tree.

17.   A method for determining a spanning tree, the method comprising acts of:
conducting a spanning tree protocol (STP) in first and second networks coupled by a
10   third network, the act of conducting comprising an act of transmitting messages between network nodes in accordance with the STP, wherein transmission of messages between nodes in accordance with the STP over a third network is suppressed.

18.   A system for forwarding data in a communication network, the system being
15   capable of participating in a spanning tree, the spanning tree including a plurality of network forwarding systems, the system comprising:
a memory;
a plurality of network interfaces, at least one of which is coupled to another network forwarding system through a plurality of networks, the another network forwarding system
20   participating in the spanning tree;
a control adapted to disable transmission of spanning tree messages over at least one of the plurality of networks coupling the system and the another network forwarding system; and
a control adapted to configure, in the memory, an identifier of a root bridge for use in the spanning tree, wherein the identifier is not assigned to any network forwarding system
25   participating in the spanning tree.

19.   The system according to claim 18, further comprising a control adapted to configure, in the memory, a root path cost value transmitted in the spanning tree messages, the spanning tree messages being transmitted over other ones of the plurality of networks except
30   the at least one of the plurality of networks.

20.   The system according to claim 18, wherein a value of the identifier of the root bridge is configured to be the same value among the system and another network forwarding system.

21.   The system according to claim 20, wherein the control adapted to disable transmission of the spanning tree over at least one of the plurality of networks further comprises a control adapted to disable transmission of the spanning tree messages over at least one of the plurality of network interfaces.